

ABSTRACT

Methods and apparatus are provided for a low shock separation joint. The separation joint comprises a male member, a female member, and an explosive device. At least one projection is formed on the male and female members. Surfaces of the at least one projection on the male and female members are mated to one another to prevent separation under compressive and tensile forces. The explosive device is placed within a cavity of said female member. A method for reducing shock in a separation joint is provided. An explosive device in the female member of the separation joint is detonated. A volume increase of the explosive device bends flanges of the female member away from one another. Surfaces in intimate contact with one another are moved out of contact with one another to decouple the male member from the female member.